PAGING ASSOCIATES, INC.
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November 21, 1996

William F. Caton, Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Dear Mr Caton,

Enclosed please find an original and 11 copies of comments concerning MM docket No. 87-268 FCC 96-317, Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service: Sixth Further Notice of Proposed Rule Making.

Please date-stamp one copy and return it to me as evidence of receipt in the self addressed envelope provided. As we are an affected party in this proceeding, copies for each commissioner have been provided.

Thank You,

Robert C. Knapp
Vice President / General Manager

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service: Sixth Further Notice of Proposed Rule Making	)))))	MM Docket No. 87-268, FCC 96-317

COMMENTS OF PAGING ASSOCIATES, INC.

I. Introduction

Paging Associates, Inc. , is a Connecticut corporation which owns and operates a Low Power Television station (LPTV), W28AJ in West Haven , Connecticut. Since 1986, W28AJ has been a continuously operating LPTV providing local programming. Paging Associates hereby submits its comments in the above referenced proceeding.

II. Present Situation

At present the FCC has proposed an implementation plan that would provide for the implementation of Advanced television, or Digital Television (DTV), to reclaim spectrum, and provide a new and improved format for television viewing. The implementation provides for the assignment of a second television channel to each and every full service television station in the United States to simultaneously broadcast a DTV signal. The goal is to not disrupt any consumer viewing choices with respect to Full Service TV. The effect of this proposal, if implemented, will fully eliminate 40-50 percent of the LPTV and TV Translator Industries. The National Association of Broadcasters (NAB) has their own frequency plan which will be submitted as a response to the FCC's proposal. The NAB plan will eliminate a much higher percentage of LPTV and TV Translators -- about 80-90 percent.

An argument has been made that there is insufficient spectrum to accommodate all Television Broadcasters and that since LPTV and TV Translators are secondary in nature with respect to spectrum concerns, they may be eliminated. Neither the value of the diversity of programming provided by these industries, nor the tremendous capital investment, and loss of jobs, will be discussed here. The real issue is how to implement DTV without disruption to the public, reclaim spectrum, and preserve existing broadcasters nationally.

III. Analysis and Comment

If the implementation of DTV is done as is suggested, there is no question two industries will be effectively eliminated. Paging Associates has extensively researched this matter and can provide a method of implementation whereby:

A) Spectrum is reclaimed quickly in areas out of the new DTV band.

B) All full service broadcasters are provided a DTV channel.

C) Most LPTV and TV Translators are preserved.

D) The viewing public at large is not disrupted.

E) A least cost implementation is provided for.

F) DTV is brought into being quickly.

To fully understand how the implementation would be accomplished, it is necessary to have a full picture of how Americans view and receive television. The following section will support and enhance an understanding of how people in general will be affected.

IV. Cable Television Systems

Cable television systems will have a unique opportunity to shape the face of television into the next century. As the gate keepers for 60-70 percent of the television households in the United States, they will determine the rate of conversion to DTV television sets. To fully comprehend the

role cable TV will have in DTV implementation, one must understand how signals will be delivered on these systems.

At present, the broadcast material for the cable system is brought in to what is known as a "Head End". The Head End is essentially a receiver and multiplexer of sorts which collects the broadcast material in many different forms: Satellite, direct fiber, NTSC, and DTV. All programming choices are presented to the Head End for processing. The Head End will convert these mixed format signals to a single unique format compatible for input to the main cable backbone. In the case where the main backbone is a high speed data highway, each presented and converted program occupies one slot on the digital highway. The highway, depending upon the format used, may support up to 350 channels with current technology . This highway or backbone is then sent through amplifiers and switches and is finally presented to each and every converter box at the subscribers home. This converter box is exactly as its name implies, a converter from the backbone to a format which can be viewed on the consumer's TV set. In our case, there will be at least two different formats, NTSC, and DTV.

It is in the interest of the cable company to maintain the NTSC signal on the output of their converter box. Should they remove it, only DTV sets would receive programming. Since every television receiver in the country will not be replaced for many years to come, maintaining the NTSC standard and their subscriber base is important.

Understanding that the cable backbone format is in no way representative of either the NTSC or DTV signal entering the Head End, and considering that output from the converter box is simply new and old format standards, interesting situations arise.

1) The viewing public on cable TV will not notice nor be concerned with the format change to DTV since their television sets will remain unchanged. The programming will be

processed, converted, and delivered usable, as a responsibility of the cable operator.

2) The consumer will not rush to replace their NTSC set with a DTV set. In fact the cable operator may market this conversion feature as a way to save NTSC sets, and increase their subscriptions for service. Knowing you could always rely upon the cable operator to provide converted signals for use on your existing sets would be a great incentive to stay with or subscribe to cable TV.

3) Cable operators also have new gate keeping responsibilities. Since each slot on the backbone data highway is essentially a programming choice, any subchannels located within the DTV signal may not be considered "core" programming, and may be discarded. Although the DTV signal may consist of 8 programming choices, the cable operator may not wish to use 8 channels on the cable backbone to accommodate some new programs from a competitor.

Cable television is the primary delivery method to television households in the United States. Most homes will never know that a new standard has arrived, and cable TV with their programming decisions will guide the consumer towards the purchase of a new DTV set if necessary. The decision to view programming on an NSTC set locked on to channel 3, or a DTV set locked on to channel 3, will be a difficult sell for DTV at best. Since cable and over-the-air broadcasters are competitors, cable would still control viewers choices, and minimize the effect of over-the-air broadcasters programming choices

V. Satellite TV.

At present direct satellite television accounts for 10-15 percent of the viewing choices in the United States. This includes both large C band programming dishes and 18" direct broadcast digital systems. At present both methods require an additional input to the converter boxes to receive local NTSC TV broadcasts. Satellite programers will need to make changes to their

converter boxes, or face serious problems in marketing their products when the conversion to DTV takes place.

Consider the typical satellite consumer. They receive digital signals from space for national programming, but rely upon local NTSC signals for local channels. When DTV is the national standard, they will be faced with a choice regarding local signals: replace their set, purchase a DTV to NTSC converter, or switch to cable which will maintain a NTSC signal.

The satellite programers have already addressed this problem. They will provide converter boxes that have two inputs, a combined DTV/ NTSC input for local programs, and their own digital signal. The converter box output will be in both DTV and NTSC, similar to the cable TV solution. In addition many satellite systems will provide local super-stations as part of their satellite based digital signal programming.

In effect, the subscribers to satellite TV will not be affected by the conversion to DTV. For the most part, they will be unaware of the change.

VI. The Remaining Twenty Five Percent

Considering that both Cable TV and Satellite TV will solve the DTV conversion process for fully seventy-five percent of the United States viewing audience, a plan to retain the remaining 25 percent must be in place.

At present, this is the segment of the population who either choose not, or cannot afford either Cable, or Satellite TV. They are currently being served by a mix of Full Service Broadcasters, Low Power TV Broadcasters, and Television Translators. Their only option to view DTV will be in the form of a new TV set, or a DTV to NTSC converter. The current proposal provides for a dual channel allotment for Full Service Broadcasters whereby both an NTSC and DTV signal is broadcast to accommodate this segment of the population. This is done

however, at the virtual elimination of both the Low Power Television Industry and Translator Industry which caters almost exclusively to these viewers.

VII. The Solution

Clearly, seventy-five percent of the viewing audience in the United States will not be affected by any plan of DTV implementation. Accommodation is being made for the remaining twenty-five percent. LPTV, and TV Translators will be relieved of their ability to broadcast, Full Service Stations will spend millions building new towers, transmitters, and equipment, and viewers in the twenty-five percent group will additionally lose LPTV and Translator programming.

The current implementation plan is "Spectrum Hungry". It gobbles every available channel to accommodate Full Service Broadcasters, and displaces thousands of LPTVs and Translators in the process.

DTV by its own nature tends to conserve spectrum. With DTV, broadcast stations can be packed adjacent to each other. For each Full Service Station that converts to DTV, two adjacent channels are created at the same location. Paging Associates proposes the following:

A) A date be chosen for all Full Service Stations between channel 7 and 52 (in-band) to convert to DTV.

B) Each NTSC in-band Full Service Station would need only convert its modulator to accommodate the new DTV format. Each existing NTSC in-band station would retain the same channel they are on now, but in DTV format.

C) Due to the fact there will be an abundance of spectrum on the day this occurs, each and every Full Service station would build and have ready a new NTSC Translator Station to accommodate their fraction of the twenty five percent off-the-air viewers.

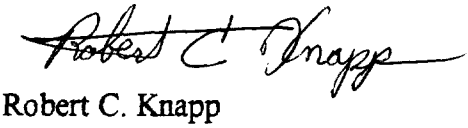
D) Full Service out of DTV band broadcasters would move sometime after the main transition but be given special preference since they have a greater cost to bear.

E) LPTV and Translators would continue to broadcast in NTSC format until the full changeover date to DTV occurs. At that time they too would convert to DTV.

This method saves most Full Service Broadcasters, millions of dollars in unnecessary station builds, maintains NTSC broadcasts for all off-the-air viewers, preserves LPTV and Translator stations, implements the conversion to DTV faster, and helps the cable and satellite TV industry in the process.

Respectfully submitted,

PAGING ASSOCIATES, INC.
By its Vice President



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